

In the Claims:

Please amend claims 1, 4, 6, 11, 18 and 21, and cancel claim 3, as shown below. All pending claims are presented below.

1. (Currently Amended): A marker-zone to determine a position of a head on a printed media having a plurality of chevrons for use in self-servo writing of a data storage device, comprising:
a transition-pair extending radially over a portion of the printed media;
wherein the transition-pair is arranged substantially perpendicular to the head at a location radially coincident with the head when the head is disposed over the transition-pair;
~~one or more edges~~ an edge defined by a radial transition from a presence of ~~[[a]]~~ the transition-pair to an absence of the transition-pair;
~~wherein at least one of the one or more edges~~ the edge is located at defines a gross radial position; and
~~wherein the at least one of the one or more edges~~ edge circumferentially precedes one or more of the plurality of chevrons located at the radial position.
2. (Original): The marker-zone of claim 1, wherein the one or more chevrons are a zig-burst and a zag-burst.
3. (Cancelled)
4. (Currently Amended): A template pattern to determine a position of a head on a printed media for use in self-servo writing of a data storage device, comprising;
a plurality of chevrons;
a plurality of ~~pulse~~ pulses preceding the plurality of chevrons, the plurality of pulses extending radially across a portion of ~~from an inner diameter of said printed media to an outer diameter of said printed media;~~
wherein the plurality of pulses are arranged generally perpendicular to a direction of travel the head at a location radially coincident with the head when the head is disposed over the plurality of pulses;
wherein at least one of the plurality of pulses includes a gap such that the pulse

is radially discontinuous;

wherein the gap includes an edge defined by a radial transition from a presence of the pulse to an absence of the pulse; and

wherein said the position is determined by a location of said head relative to the ~~gap~~ edge.

5. (Original): The template pattern of claim 4, wherein the gap includes a first edge and a second edge.

6. (Currently Amended): The template pattern of claim ~~[[5]]~~ 4, wherein said position includes a gross position and a fine position;

wherein the gross position is determined by the location relative to ~~one or both of the first~~ the edge ~~and the second edge~~; and

wherein the fine position is determined by a phase of at least one of the plurality of chevrons at the location.

7. (Original): The template pattern in claim 6, wherein the at least one of the plurality of chevrons at the location comprises one or both of a zig-burst and a zag-burst.

8. (Original): The template pattern of claim 4, wherein the plurality of chevrons comprises one or both of a plurality of zig-bursts and a plurality of zag-bursts.

9. (Original): The template pattern of claim 4, wherein the head is a read head.

10. (Original): The template pattern of claim 4, wherein the head is an MR head.

11. (Currently Amendment): A pattern to determine a position of a head on a media, comprising:

a plurality of pulses extending radially along a surface of said media, at least one of the plurality of pulses including a gap such that the pulse is radially discontinuous;

wherein the gap includes an edge defined by a radial transition from a presence of the

pulse to an absence of the pulse; and

a plurality of chevrons located such that a portion at least one of the plurality of chevrons is located at each point along a radius of the surface;

wherein said position is determined by a location of said head relative to the gap edge.

12. (Original): The pattern of claim 11, wherein the gap includes a first edge and a second edge.

13. (Original): The pattern of claim 12, wherein said position includes a gross position and a fine position;

wherein the gross position is determined by the location relative to one or both of the first edge and the second edge; and

wherein the fine position is determined by a phase of at least one of the plurality of chevrons at the location.

14. (Original): The template pattern of claim 13, wherein the at least one of the plurality of chevrons at the location comprises one or both of a zig-burst and a zag-burst.

15. (Original): The template pattern of claim 11, wherein the plurality of chevrons comprises one or both of a plurality of zig bursts and a plurality of zag-bursts.

16. (Original): The template pattern of claim 11, wherein the head is a read head.

17. (Original): The template pattern of claim 11, wherein the head is an MR head.

18. (Currently Amended): A data storage system having a rotatable medium for storing data, comprising:

a housing;

a spindle connected with the housing, said rotatable medium being connected with the spindle;

an actuator connected with the housing;

- 7 -

a head connected with the actuator such that the head can be positioned over a surface of the rotatable medium;

wherein the surface includes a pattern to self-servo write said rotatable medium, the pattern having;

a plurality of pulses extending radially along the surface, at least one of the plurality of pulses including a gap such that the pulse is radially discontinuous;

wherein the gap includes an edge defined by a radial transition from a presence of the pulse to an absence of the pulse; and

a plurality of chevrons located such that a portion at least one of the plurality of chevrons is located at each point along a radius of the surface;

wherein a position of the head can be determined by a location of the head relative to the ~~gap~~ edge.

19. (Original): The system of claim 18, wherein the gap includes a first edge and a second edge.

20. (Original): The system of claim 19, wherein said position includes a gross position and a fine position;

wherein the gross position is determined by the location relative to one or both of the first edge and the second edge; and

wherein the fine position is determined by a phase of at least one of the plurality of chevrons at the location.

21. (Currently Amended): The system of claim 20, wherein the at least one of the plurality ~~if~~ of chevrons at the location comprises one or both of a zig-burst and a zag-burst.

22. (Original): The template pattern of claim 18, wherein the plurality of chevrons comprises one or both of a plurality of zig-bursts and a plurality of zag-bursts.

23. (Original): The template pattern of claim 18, wherein the head is read head.

24. (Original): The template pattern of claim 18, wherein the head is an MR head.